

## **REMARKS**

Claims 3-5 have been amended for clarity. Support for the amendments appear throughout the specification as filed, e.g., p. 1, line 22 and the claims as filed.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

### **I. Claim Objections**

Claims 4-5 are objected to for reciting "of the preceding claim." Applicants have amended the claim dependencies of claims 4-5, thus obviating the objection. Applicants respectfully request reconsideration and withdrawal of the objection.

### **II. The Rejection of Claim 3 under 35 U.S.C. 112, Second Paragraph**

Claim 3 stands rejected under 35 U.S.C. 112, second paragraph as lacking insufficient antecedent basis for "the baked product." This rejection is respectfully traversed. Applicants have amended the claims to recite that the composition is for preparing a baked product, thereby obviating the rejection. For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112, second paragraph. Applicants respectfully request reconsideration and withdrawal of the rejection.

### **III. The Rejection of the Claims under 35 U.S.C. 103**

Claims 1-6 stand rejected under 35 U.S.C. 103 as allegedly being unpatentable over JP 2622563 ("R1") in view of JP 58190346 ("R2") and US 4,567,046 ("R3"). This rejection is respectfully traversed.

Applicants' claims are directed to processes and compositions comprising a lipoxygenase and a lipolytic enzyme active on polar lipids, wherein the lipoxygenase and the lipolytic enzyme are added in amounts producing a synergistic effect on the volume of an edible or baked product. As set forth in the specification as filed, the combination of the lipoxygenase and the lipolytic enzyme has a synergistic effect on volume and/or crumb color of an edible or baked product. Synergy may be determined by making doughs or baked products with addition of the two enzymes separately and in combination, and comparing the effects; synergy is indicated when the combination produces a better effect than each enzyme used separately. See, e.g., p. 3, lines 1-6. The specification as filed demonstrates the unexpected synergy resulting from the claimed invention;

i.e., that lipoxygenase in combination with lipolytic enzyme active on polar lipids has a synergistic effect on volume and improved crumb color. See, e.g., Example 1. For the foregoing reasons, none of R1, R2 or R3 teach or suggest the claimed invention.

The English-language machine translation of R1 discloses the addition of wheat lipoxygenase in an amount of 50-500 units per gram of wheat flour, which is allegedly effective in increasing the volume and whiteness of bread. As the Examiner admits, R1 is silent as to the use of lipolytic enzymes active on polar lipids in a dough, let alone lipoxygenase and lipolytic enzyme active on polar lipids in amounts producing a synergistic effect on the volume of the edible or baked product. Nor do R2 and/or R3 cure this defect.

The English-language machine translation of R2 discloses the addition of lipoxygenase and lisophosphatidine, as well as L-cysteine, collagen hydrosylate and an amino acid such as lysine, proline or arginine, which purportedly results in large specific volume, good appearance and texture of bread. Again, as the Examiner admits, nowhere does R2 teach or suggest the addition of a lipolytic enzyme active on polar lipids in the dough, let alone lipoxygenase and lipolytic enzyme active on polar lipids in amounts producing a synergistic effect on the volume of the edible or baked product.

R3 discloses the addition of phospholipase to dough. However, R3 is silent as to lipoxygenase, let alone lipoxygenase and lipolytic enzyme active on polar lipids in amounts producing a synergistic effect on the volume of the edible or baked product.

Thus, none of R1, R2 or R3, alone or in combination, teach or suggest the claimed invention.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

#### IV. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application. Should any additional fees be due, please charge deposit account no. 50-1701 of Novozymes North America Inc.

Respectfully submitted,

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